FURUNO

GENERAL NOTES:

1. THE VESSEL SHALL BE CLASSIFIED UNDER ABS MALTESE CROSS A1, CIRCLE E, UNRESTRICTED SERVICE AND ICE CLASS C0.
2. ALL PLATING SHALL BE ALUMINUM 5086–H116, UNLESS OTHERWISE NOTED. ALL SHAPES SHALL BE ALUMINUM 5086–H111, UNLESS OTHERWISE NOTED.
3. WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE NOAA "STATEMENT OF REQUIREMENTS" AND ACCEPTABLE COMMERCIAL MARINE QUALITY.
4. ALL WELDING SHALL BE IN ACCORDANCE WITH ABS RULES.
5. STIFFENER AND GIRDER END CONNECTION DETAILS SHALL BE IN ACCORDANCE WITH HMI STANDARDS, REFERENCE NO. 10.
6. STIFFENER AND GIRDER END CONNECTIONS SHALL BE DESIGNATED AS FOLLOWS:
   "EC–S": CUT MEMBER ONE INCH SHORT
   "EC–W": WEB IS CONNECTED
   "EC–F": FULL CONNECTION – WEB AND FLANGE STRENGTH MAINTAINED.
   "EC–A": EFFECTIVE BRACKET PER ABS RULES, PART 3, SECTION 2.5.3
7. UNLESS OTHERWISE NOTED, ALL END CONNECTIONS SHALL BE "EC–F".
8. COPES, SNIPES AND DRAINS SHALL BE IN ACCORDANCE WITH HMI STANDARDS, REFERENCE NO. 4.
9. PLATES AND SHAPES ARE IN IMPERIAL UNITS. DIMENSIONS ARE IN METRIC UNITS.
10. FRAME SPACING = 600 mm.
11. UNLESS OTHERWISE NOTED, TRANSVERSES SHALL HAVE FITTED CONNECTIONS THROUGH GIRDERS.
12. GIRDERS SHALL BE FITTED WITH TRIPPING BRACKETS AT 3 m OR MAX. OF 5 FRAME SPACINGS.
13. PORT AND STARBOARD ARE SIMILAR UNLESS OTHERWISE NOTED.
14. ABBREVIATIONS ARE IN ACCORDANCE WITH ASME Y14.38.
15. LOCAL STRUCTURAL DETAILS SUCH AS SMALL INSERTS, HEADERS AND STIFFENER END CONNECTIONS ARE NOT SHOWN IN ALL LOCATIONS. SEE SPECIFICATIONS FOR REQUIREMENTS.
16. FOR CLARITY, ONLY STANCHIONS BELOW DECKS ARE SHOWN. O INDICATES STANCHIONS BELOW DECK.
17. ALL STRUCTURE REPRESENTS ABS NOMINAL SCANTLINGS WITH THE EXCEPTION OF THE 02 LVL DECK 250 PSF DESIGN LOAD FWD OF FR 22.
18. ▨ INDICATES DECK ELEVATION DROP.
19. FILLET WELD SIZES TO BE 100% EFFICIENT IN ACCORDANCE WITH MIL–STD–1628 (SHIPS) OR EQUAL.

FUME–TIGHT (FT) BULKHEAD DETAILS

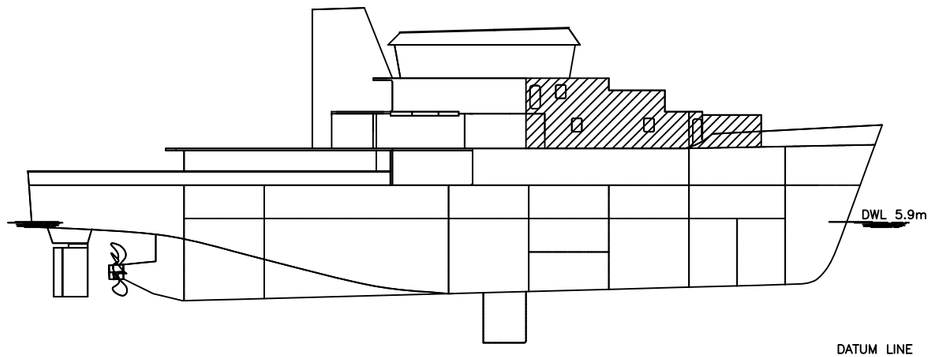
LOCATION	ORIENTATION	STIFFENER SPACING (mm)	PLATE THICKNEES (in)	STIFFENER TYPE	END CONN. TOP	END CONN. BOTTOM
01 LEVEL	TRANSVERSE	625	1/4"	3" X 2" X 1/4" L	S	S
01 LEVEL	LONG	600	1/4"	3" X 2" X 1/4" L	S	S

REVISIONS

REV	ZONE	DESCRIPTION	DATE	APPROVED
1		1. SH 1: EXTENDED HULL APPLICABILITY TO INCLUDE HULL 1956. 2. SH 2, SECTION 9–A: REVISED VERTICAL HEIGHT DIMENSIONS OF LOUVER COUTOUT FROM 160 TO 206 AND 1035 TO 1080. 3. SH 2, PLAN 11–A: CHANGED WEB DEPTH OF BUILT–UP TEE FROM 15" TO 18". 4. SH 2, SECTION 11–D: REVISED AND ADDED BRACKET DETAILS. 5. SH 3, ELEVATION 19–A: REVISED VERTICAL HEIGHT DIMENSIONS OF LOUVER COUTOUT FROM 160 TO 206 AND 885 TO 930. ITEM 1 PER ENGINEERING DEVELOPMENT. ITEMS 2 THRU 5 PER PRODUCTION DESIGN	4/4/05 AGE	4/7/05 FH
2		1. SH 1: EXTENDED HULL APPLICABILITY TO INCLUDE HULL 1957. 2. SH 1: THIS REVISION REFLECTS AS–BUILT CONDITIONS FOR HULL 1953. ITEM 1 & 2 PER ENGINEERING DEVELOPMENT	8/11/06 MDP	8/31/06 SM
3		1. SH 2, PLAN 14–A; ADDED NT BHD AT FR 25 1/2 INSIDE ROLL STABILIZATION TANK. 2. SH 3, ELEVATION 19–A & ELEVATION 19–C; ADDED NT BHD AT FR 25 1/2 INSIDE ROLL STABILIZATION TANK. 3. SH 3, SECTION 21–A; ADDED DETAILS OF NT BHD AT FR 25 1/2. 4. SH 3, DETAIL 18–B, DETAIL 22–C & DETAIL 22–D; ADDED DETAILS OF NT BHD OPENINGS AT FR 25 1/2. ITEM 1 THRU 4 PER ECP 104 THIS REVISION APPLICABLE TO M283 & M284 ONLY	2/18/08 MDP	

AS–BUILT

△2/2



KEY PLAN

DOCUMENT DISTRIBUTION RECORD

DATE IN ROOM	9/25/03	4/5/05	8/11/06												
ISSUE DATE	9/29/03	4/7/05	8/31/06												
REV#	0	1	2	3											
PROJECT ENG	1	1													
PROJECT MGR	1	1													
ABS	10														
USPH															
USCG															
HMP PC	12	12	1	1											
PROD DESIGN GROUP	1(3)														
HULL MGR															
HULL LEAD	(1)	(1)	1	1											
HVAC	1	1													
JOINER	1	1													
HPG PC	3	3	1	1											
NOISE CONT															
CHAND LLC	1														
ISSUED BY	AE	AE	SM												

DWG NO. M282–100–FH11 SH 1

FUNCTIONAL DESIGN DRAWING
NOT FOR CONSTRUCTION

RESERVATIONS:

REFERENCES

NO.	TITLE	DRAWING NUMBER
11	MISC. STRUCTURAL DETAILS	SSD–100–003
10	TYPICAL STRUCTURAL DETAILS	M282–100–FH67
9	BIMETALLIC DETAILS	M282–100–FH13
8	DECK LIFTING EQUIPMENT FDN BOOKLET	M282–562–FH35
7	CENTERBOARD TRUNK SCANTLINGS	M282–150–FH30
6	PILOTHOUSE SCANTLINGS, 03 LVL–04 LVL	M282–100–FH14
5	AFT HOUSE SCANTLINGS, 01 LVL–03 LVL FR 39–AFT	M282–100–FH12
4	MISC. STRUCTURAL DETAILS	SSD–100–003
3	HULL MIDBODY SCANTLING	M282–110–FH03
2	HULL FOREBODY SCANTLING	M282–110–FH02
1	GENERAL ARRANGEMENT	M282–101–FA02

DRAWING INDEX

SH	DESCRIPTION
3	SECTIONS & ELEVATIONS
2	PLANS
1	TITLE SHEET

△1/1 HULL APPLICABILITY
M282 HULL 1953
△2/1 M283 HULL 1956
M284 HULL 1957

10	9	8	7	6	5	4	3	2	1	REV
							3	3	3	REV
							3	2	1	SHT

REVISION STATUS

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VT Halter Marine, Inc.
Vision Technologies Systems

DRAWN BY WH 9/22/03	ABS APPV		
CHECKED BY AE 9/22/03	USCG APPV		
APPROVED BY RG 9/25/03	OWNER APPV		
HULL NO APPLICABILITY	CAGE CODE 3B213	SIZE D	
ESTIMATE NO 00–104	SCALE 1:1		

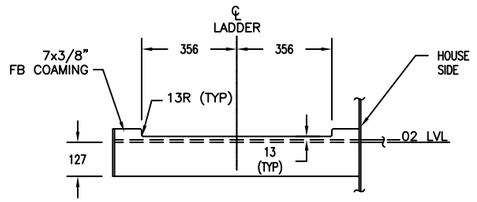
VESSEL

TITLE
FORWARD HOUSE SCANTLINGS
01–03 LVL, FR 39–FWD

JOB NO.	ITEM	DELIVERABLE	SHEET	REV
M282	100	FH11	001	03

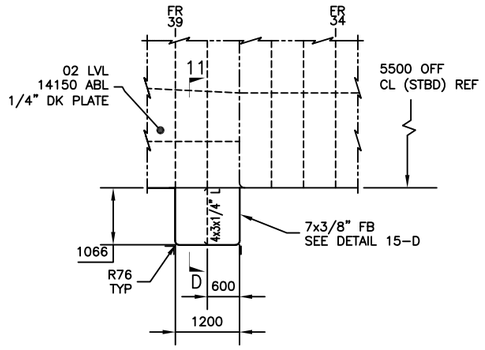
FILE SHEET 1 OF 3

PLOT: 1:1



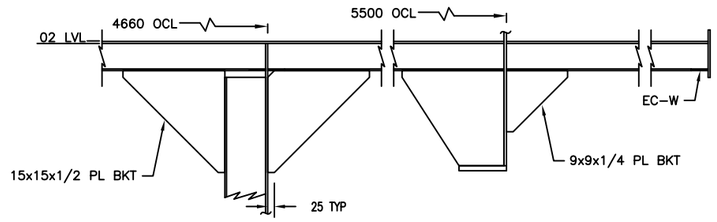
DETAIL 15–D

TYP COAMING CUTOUT IWO INCLINED LADDER
SCALE: 1:10



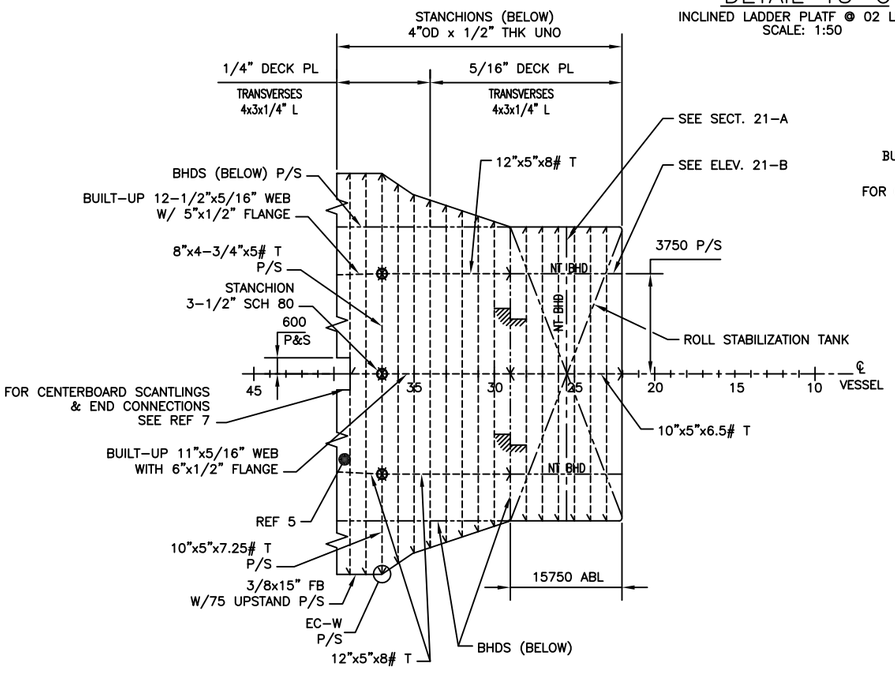
DETAIL 13–C

INCLINED LADDER PLATF @ 02 LEVEL
SCALE: 1:50



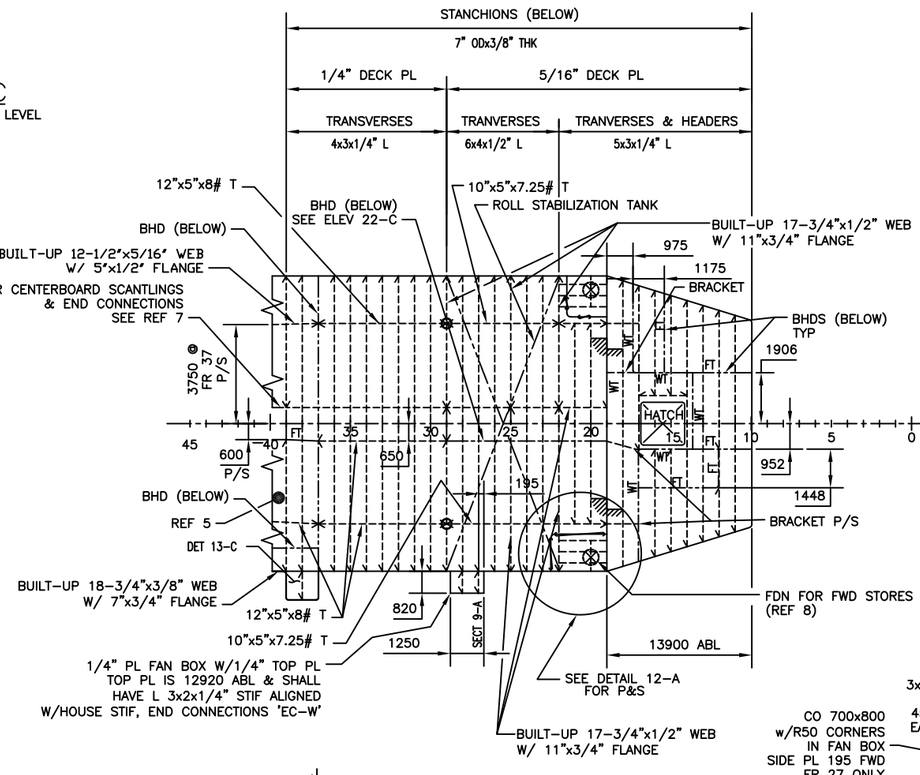
SECTION 11–D △4 △1

FRAME 38 LKG FWD
SCALE: 1:10



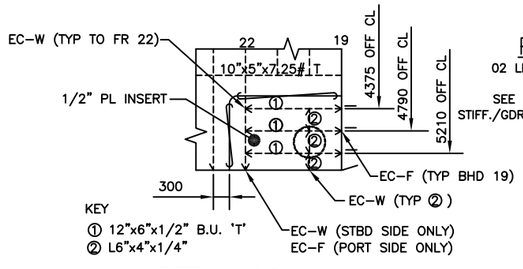
PLAN 14–A △3 △1

03 LEVEL – 16650 ABL U.N.O.
FR. 22 – FR. 39
SEE GENERAL NOTE 8 AND 12.
STIFFENER & GIRDER END CONNECTIONS 'EC–F' UNO



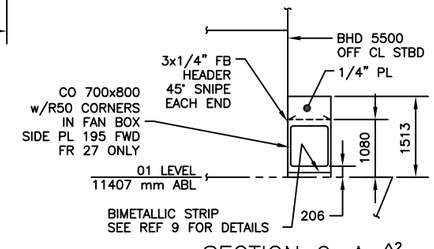
PLAN 11–A △3 △1

02 LEVEL – 14150 ABL U.N.O.
FR. 10 – FR. 39
SEE GENERAL NOTE 8 AND 12.
STIFF./GDR END CONNECTIONS 'EC–F' UNO



DETAIL 12–A

SCALE:–1:50


BHD 5500 OFF CL STBD
3x1/4" FB HEADER 45° SNIPE EACH END
1/4" PL
CO 700x800 w/R50 CORNERS IN FAN BOX SIDE PL 195 FWD FR 27 ONLY
1080
1513
01 LEVEL 11407 mm ABL
206
BIMETALLIC STRIP SEE REF 9 FOR DETAILS

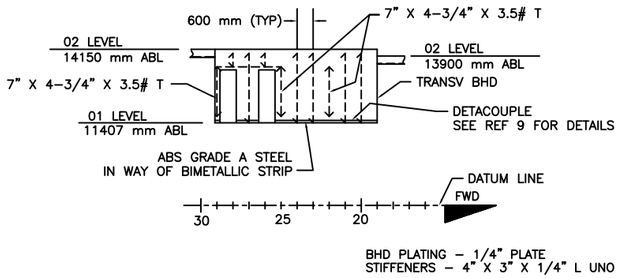
SECTION 9–A △2 △1

195 FWD FR 27 &
145 FWD FR 29 LKG FWD
SCALE:–1:50

HULL NO	CAGE CODE	SIZE	JOB NO.	ITEM	DELIVERABLE	SHEET	REV
1953	3B213	D	M282	100	FH11	002	03
ESTIMATE NO 00–104	SCALE 1:100		FILE			SHEET 2 OF 3	

PLOT: 1=100

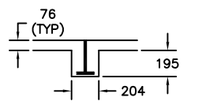
DWG NO. M282–100–FH11 SH 2



BHD PLATING – 1/4" PLATE
STIFFENERS – 4" X 3" X 1/4" L UNO

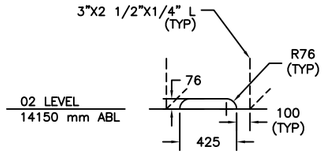
ELEVATION 22–C

LKG INBD AT 650 mm OFF CL (STBD)
SCALE= 1:100
STIFFENER & GIRDER END CONNECTIONS 'EC–F' UNO



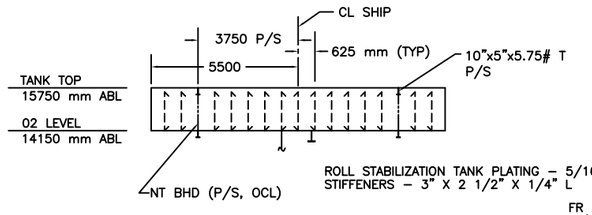
DETAIL 22–D ◬3 4

CUTOUT IWO GIRDER
3750 OCL P/S
SCALE= 1:20



DETAIL 22–C ◬3 4

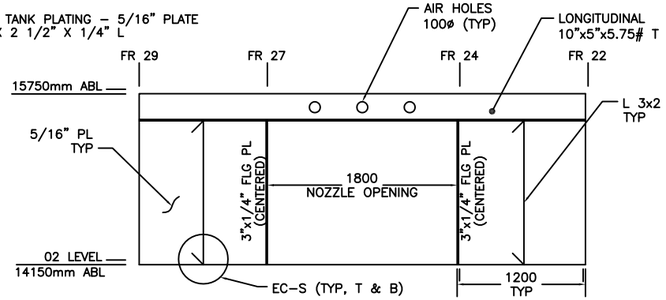
CUTOUT BTW VERTICAL STIFFENERS
SCALE= 1:20



ROLL STABILIZATION TANK PLATING – 5/16" PLATE
STIFFENERS – 3" X 2 1/2" X 1/4" L

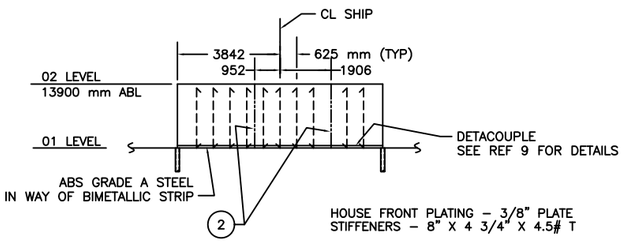
SECTION 22–B

LKG AFT AT FR 22
SCALE= 1:100
STIFFENER & GIRDER END CONNECTIONS 'EC–F' UNO



ELEVATION 21–B

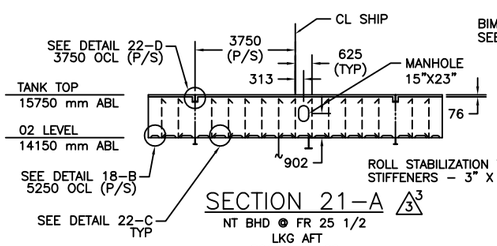
NT BHD/NOZZLE PLATE 3750 OFF CL
PORT LKG OUTBD; STBD SIM
SCALE= 1:25



HOUSE FRONT PLATING – 3/8" PLATE
STIFFENERS – 8" X 4 3/4" X 4.5# T

SECTION 22–A

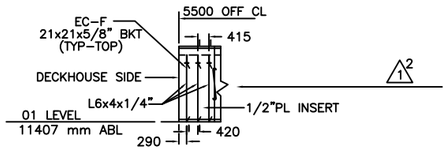
LKG AFT AT FR 10
SCALE= 1:100
STIFFENER & GIRDEER END CONNECTIONS 'EC–F' UNO



ROLL STABILIZATION TANK PLATING – 5/16" PLATE
STIFFENERS – 3" X 2 1/2" X 1/4" L

SECTION 21–A ◬3 3

NT BHD @ FR 25 1/2
LKG AFT
SCALE= 1:100



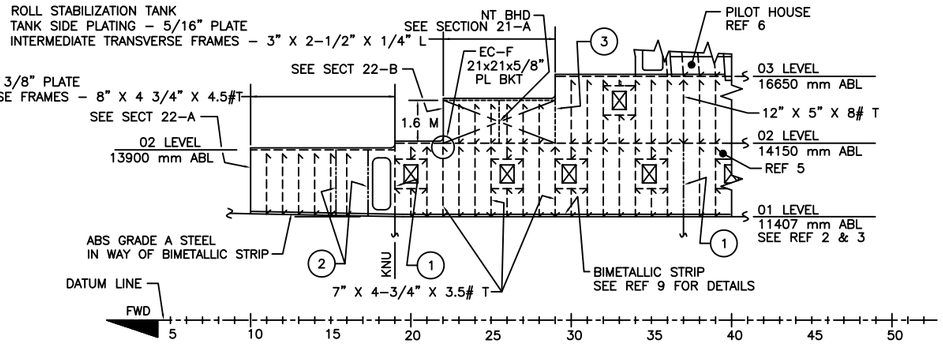
◬1 2

ID	STIFFENER SPACING (mm)	PLATE THICKNESS (IN)	STIFFENER TYPE
1	625	1/4"	4" X 3" X 1/4" L *
ON WT BHD 19 @ 4375,4790 & 5210 OFF CL P&S L6x4x1/4"			
2	625	1/4"	3" X 2" X 1/4" L
3	625	5/16"	4" X 3" X 1/4" L

* NOTE: IN WAY OF PILLARS, BULKHEAD STIFFENERS SHALL BE 6" X 3 1/2" X 3/8" L.

ELEVATION 19–D

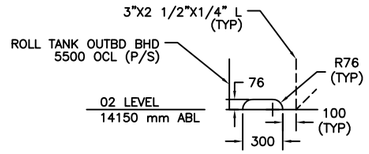
PART BHD 19 – PORT SIDE LOOKING FWD
STBD SIMILAR & OPPOSITE



ELEVATION 19–C ◬3 2

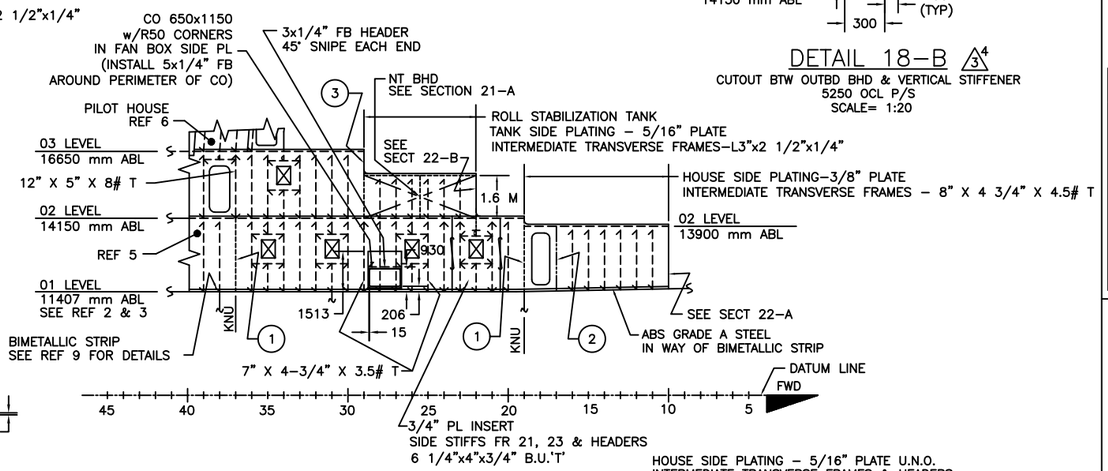
HOUSE SIDE – PORT
SCALE= 1:100
STIFFENER & GIRDER END CONNECTIONS 'EC–F' UNO

HOUSE SIDE PLATING – 5/16" PLATE U.N.O.
INTERMEDIATE TRANSVERSE FRAMES & HEADERS
01–02 LEVEL – 6" X 4" X 1/4" L U.N.O.
02–03 LEVEL – 4" X 2" X 1/4" L U.N.O.



DETAIL 18–B ◬3 4

CUTOUT BTW OUTBD BHD & VERTICAL STIFFENER
5250 OCL P/S
SCALE= 1:20



ELEVATION 19–A ◬1 5 ◬3 2

HOUSE SIDE – STARBOARD
SCALE= 1:100
STIFFENER & GIRDER END CONNECTIONS 'EC–F' UNO

HOUSE SIDE PLATING – 5/16" PLATE U.N.O.
INTERMEDIATE TRANSVERSE FRAMES & HEADERS
01–02 LEVEL – 6" X 4" X 1/4" L U.N.O.
02–03 LEVEL – 4" X 2" X 1/4" L U.N.O.

DWG NO. M282–100–FH11 SH 3

HULL NO	CAGE CODE	SIZE	JOB NO.	ITEM	DELIVERABLE	SHEET	REV
1953	3B213	D	M282	100	FH11	003	03
ESTIMATE NO	SCALE		FILE			SHEET 3 OF 3	
00–104	AS NOTED						

PLOT: 1=100